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DIVISION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application  
Inventor: Jeffrey W. Carr  
Appl. No.: 10/002,483  
Confirm. No.: 2209  
Filed: November 1, 2001  
Title: Method for Atmospheric Pressure Reactive Atom  
Plasma Processing for Surface Modification

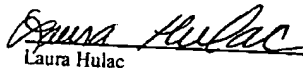
27 FEB 27 PM 10: 21

PATENT APPLICATION

Art Unit: 1763  
Examiner: Allan W. Olsen

Customer No. 23910

CERTIFICATE OF TRANSMISSION/MAILING UNDER 37 C.F.R. § 1.8  
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VA 22313-1450, on the date shown below.



Laura Hulac

(Signature)

Signature Date: 2-17-06

REQUEST FOR REFUND OF EXCESS FEES PAID UNDER 37 C.F.R. §1.26

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. § 1.26(a), Applicant requests refund of a fee paid in excess of that required  
with respect to the above-identified patent application.

X A fee of \$180.00 was paid for an Information Disclosure Statement as evidenced by the  
attached:

X A copy of the returned check; or  
A copy of a deposit account charge statement.

Applicant respectfully requests a refund of \$ 180.00 for the excess fee paid.

X Pursuant to 37 C.F. R. § 1.26(b) this request for refund is being submitted within two years  
from the date of payment of the fee paid in excess as identified above.


X

A copy of the Information Disclosure Statement as filed, with International Search Report, is attached.

Please credit the refund to our Deposit Account No. 06-1325. A duplicate copy of this document is enclosed.

Respectfully submitted,

Date: 2/17/05

By:   
David T. Xue  
Reg. No. 54,554

Customer No. 23910  
FLIESLER MEYER LLP  
Four Embarcadero Center, Fourth Floor  
San Francisco, California 94111-4156  
Telephone: (415) 362-3800



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application

Inventor(s): Jeffrey W. Carr  
Appln. No.: 10/002,483  
Confirm. No.: 2209  
Filed: November 1, 2001  
Title: METHOD FOR ATMOSPHERIC  
PRESSURE REACTIVE ATOM PLASMA  
PROCESSING FOR SURFACE MODIFICATION

PATENT APPLICATION

Art Unit: 1763  
Examiner: Allan W. Olsen  
Atty. Docket No.: CARR-01000US2

Customer No. 23910

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*Laura Hulac*

(Signature)

Laura Hulac

Signature Date: *11/30/05*

12/02/2005 YPOLITE1 00000025 10002483

FC:1806

180.00 OP

**INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.56**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

It is requested that the information identified in this statement be considered by the Examiner and made of record in the above-identified application. This statement is not intended to represent that a search has been made or that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56. If this is a continuation, divisional or continuation-in-part application, it is understood that the Examiner will consider all information which was considered by the Office in a parent application. MPEP §609. Such information therefore is not listed herein unless it is desired that the information be printed on a patent issuing from the subject application.

***Enclosed with this statement are the following:***

✓ Form PTO-1449. The Examiner is requested to initial the form and return it to the undersigned in accordance with M.P.E.P. §609.

✓ Copies of cited U.S. patents and publications are not enclosed. However, copies of cited foreign patent documents and non-patent literature are enclosed in accordance with 37 CFR 1.98(a)(2), as required, except for those items designated by an asterisk (\*), which were previously submitted by the applicant in a parent application, from which benefit under 35 U.S.C. §120 is claimed, with an *Information Disclosure Statement* submitted in the parent application which complies with the September 8, 2000 or subsequent revision of 37 C.F.R. §1.98(a-c), as allowed under 37 C.F.R. §1.98(d)(1).

— If any of the cited/submitted documents is in a foreign language, a concise explanation of relevance is provided pursuant to 37 C.F.R. §1.98(a)(3)(i). For foreign language

Attorney Docket No.: CARR-01000US2  
DXue/Carr/1000/1000US2/Information Disclosure Statement

1

Adjustment date: 05/18/2006 SDIRETA1  
12/02/2005 YPOLITE1 00000025 10002483  
01 FC:1806 -180.00 OP

Rep'n. Ref: 05/18/2006 SDIRETA1 0008123500  
DAH:061325 Name/Number:10002483  
FC: 9204 \$180.00 CR

documents cited in a search report by a foreign patent office, the requirement for a concise explanation of relevance is satisfied by the submission herewith of an English language version of the search report. MPEP §609A(3). If a written English-language translation of a non-English language document, or portion thereof, is within the possession, custody or control of, or is readily available to any individual designated in §1.56(c), a copy of the translation accompanies this statement, 37 C.F.R. §1.98(a)(3)(ii), and satisfies the requirement for a concise explanation of relevance, MPEP §609A(3).

— **PTA Statement under 37 C.F.R. §1.704(d).** Each item of information contained in the *Information Disclosure Statement* was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in §1.56(c) more than thirty days prior to the filing of the *Information Disclosure Statement*.

*This statement should be considered because:*

— **37 C.F.R. §1.97(b).** This statement qualifies under 37 C.F.R. §1.97, subsection (b) because:

- (1) It is being filed within three months of the filing date of an application other than a continued prosecution application under § 1.53(d);  
-- OR --
- (2) It is being filed within 3 months of entry of a national stage;  
-- OR --
- (3) It is being filed before the mailing date of the first Office Action on the merits;  
-- OR --
- (4) It is being filed before the mailing date of the first Office Action after the filing of a Request for Continued Examination under 37 C.F.R. §1.114.

— **37 C.F.R. §1.97(c).** Although it may not qualify under subsection (b), this statement qualifies under 37 C.F.R. §1.97, subsection (c) because:

- (1) It is being filed before the mailing date of a FINAL Office Action, a Notice of Allowance, or an action that otherwise closes prosecution in the subject application, whichever occurs first.

-- AND (check at least one of the following) --

— (1) It is accompanied by a STATEMENT as set forth in 37 C.F.R. §1.97(e).  
-- OR --

X (2) It is accompanied by the \$180 fee set forth in 37 C.F.R. §1.17(p).

— **37 C.F.R. §1.97(d).** Although it may not qualify under subsection (b) or (c), this statement qualifies under 37 C.F.R. §1.97, subsection (d) because:


- (1) It is being filed on or before payment of the Issue Fee;  
-- AND --
- (2) It is accompanied by a STATEMENT as set forth in 37 C.F.R. §1.97(e);  
-- AND --
- (3) It is accompanied by the \$180 fee set forth in 37 C.F.R. §1.17(p).

✓ *Fee Authorization.* The Commissioner is hereby authorized to charge any deficiencies or credit any overpayment to Deposit Account No. 06-1325. *A duplicate copy of this authorization is enclosed.*

Respectfully submitted,

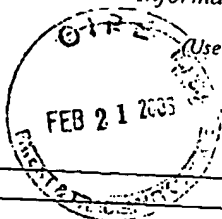
FLIESLER MEYER LLP

Date: 11/30/05

By:   
David T. Xue  
Reg. No. 54,554

Customer No. 23910  
FLIESLER MEYER LLP  
Four Embarcadero Center, Fourth Floor  
San Francisco, California 94111-4156  
Telephone: (415) 362-3800  
Facsimile: (415) 362-2928

Form PTO-1449 (Substitute) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE <b>Information Disclosure Statement</b> BY APPLICANT (Use several sheets if necessary)	Attorney Docket Number <b>CARR-01000US2</b>	Serial/Patent Number <b>10/002,483</b>
	Applicant/Patent Owner <b>Jeffrey W. Carr</b>	
	Filing/Issue Date <b>November 1, 2001</b>	Group Art Unit <b>1763</b>



FOREIGN PATENT DOCUMENTS							
Examiner Initial		Document Number	Publication Date	Country	Class	Subclass	Translation Yes   No
	1	International Search Report Mailed 31 Oct 2005		PCT			

<b>Examiner</b>	<b>Date Considered</b>
<b>*EXAMINER:</b> Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	
*1 = Copy not submitted because it was submitted in prior application SN / _____, filed _____, 20____, relied on under 35 USC §120.	
*2 = Copy not submitted because it was submitted in prior application SN / _____, filed _____, 20____, relied on under 35 USC §120.	

10/384, 502

# PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To:  
SHELDON R. MEYER  
FLIESLER MEYER LLP  
FOUR EMBARCADERO CENTER  
FOURTH FLOOR  
SAN FRANCISCO, CA 94111

RECEIVED

NOV 03 2005

FLIESLER MEYER LLP

PCT

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL SEARCH REPORT AND  
THE WRITTEN OPINION OF THE INTERNATIONAL  
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing  
(day/month/year)

31 OCT 2005

Applicant's or agent's file reference  
CARR01003W00

FOR FURTHER ACTION See paragraphs 1 and 4 below

International application No.  
PCT/US04/06773

International filing date  
(day/month/year) 05 March 2004 (05.03.2004)

Applicant  
RAPT INDUSTRIES, INC.

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes  
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 338.82.70.

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

## 4. Reminders

Shortly after the expiration of 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within 19 months from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later); otherwise, the applicant must, within 20 months from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of 30 months (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the PCT Applicant's Guide, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the ISA/ US

Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Authorized officer

Mark H. Paschall

Telephone No. 571-272-4784

Form PCT/ISA/220 (January 2004)

File: CARR-01000052 (See notes on accompanying sheet)

Action Item: Initial Search Report for?

Date: December 3 2005

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference CARR01003WO0	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US04/06773	International filing date (day/month/year) 05 March 2004 (05.03.2004)	(Earliest) Priority Date (day/month/year) 07 March 2003 (07.03.2003)
Applicant RAPT INDUSTRIES, INC.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

#### 1. Basis of the Report

a. With regard to the language, the international search was carried out on the basis of:



the international application in the language in which it was filed.



a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. ☐

With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐

Certain claims were found unsearchable (See Box No. II)

3. ☐

Unity of invention is lacking (See Box No. III)

4. ☐

With regard to the title,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the abstract,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 4



as suggested by the applicant.



as selected by this Authority, because the applicant failed to suggest a figure.



as selected by this Authority, because this figure better characterizes the invention.

b. ☐

none of the figures is to be published with the abstract.



# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/06773

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B23K 10/00

US CL : 219/121.4, 121.41, 121.59; 204/298.37; 315/111.51

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
U.S. : 219/121.4, 121.41, 121.59; 204/298.37; 315/111.51

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
118/723r, 723i

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
EAST

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,218,640 B1 (SELITSER) 17 APRIL 2001, SEE ENTIRE DOCUMENT.	1-46
Y		18-20
Y	US 3,953,704 A (BEJAT ET AL) 27 APRIL 1976, SEE ENTIRE DOCUMENT.	1-46
A	US 6,262,523 B1 (SELWYN ET AL) 17 JULY 2001, SEE ENTIRE DOCUMENT.	1-46
A	US 6,424,091 B1 (SAWADA ET AL) 23 JULY 2002, SEE ENTIRE DOCUMENT.	1-46

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

29 September 2005 (29.09.2005)

Date of mailing of the international search report

31 OCT 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Authorized officer

Mark H. Paschall

Telephone No. 571-272-4784

Facsimile No. (571) 273-3201

From the  
INTERNATIONAL SEARCHING AUTHORITY

# PATENT COOPERATION TREATY

To:  
SHELDON R. MEYER  
FLIESLER MEYER LLP  
FOUR EMBARCADERO CENTER  
FOURTH FLOOR  
SAN FRANCISCO, CA 94111

## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference		Date of mailing (day/month/year)
CARR01003WO0		31 OCT 2005
FOR FURTHER ACTION See paragraph 2 below		
International application No.	International filing date (day/month/year)	Priority date (day/month/year)
PCT/US04/06773	05 March 2004 (05.03.2004)	07 March 2003 (07.03.2003)
International Patent Classification (IPC) or both national classification and IPC		
IPC(7): B23K 10/00 and US Cl.: 219/121.4, 121.41, 121.59; 204/298.37; 315/111.51		
Applicant		
RAPT INDUSTRIES, INC.		

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

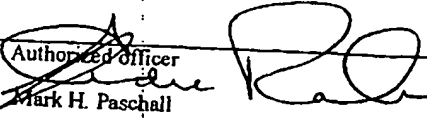
### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Date of completion of this opinion 29 September 2005 (29.09.2005)	Authorized Officer  Mark H. Paschall
Form PCT/ISA/237 (cover sheet) (April 2005)		Telephone No. 571-272-4784

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US04/06773

Box No. 1 Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
- ☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper
- ☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
- ☐ filed together with the international application in electronic form.
- ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/US04/06773

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Claims 1-46 YES  
Claims NONE NO

Inventive step (IS)

Claims NONE YES  
Claims 1-46 NO

Industrial applicability (IA)

Claims 1-46 YES  
Claims NONE NO

2. Citations and explanations:

Claims 1-17,21-46 lack an inventive step under PCT Article 33(3) as being obvious over Selitser in view of Bejat et al. Selitser teaches a plasma flame torch that uses reactive gases at atmospheric pressure for use in etching, which is cleaning materials such as photo resist off of substrates. Bejat et al is applied for evidencing that a plasma flow from a plasma torch does comprise a plasma flame and hence, a flame torch, as claimed. Note column 2, lines 57-70. In view of this teaching it is considered obvious that the torch in Selitser does comprise a flame torch, as claimed.

Claims 18-20 lack an inventive step under PCT Article 33(3) as being obvious over Selitser in view of Bejat, as set forth above, further in view of the disclosed prior art. The disclosed prior art in the instant disclosure is relied on for evidencing that it is conventional to planarize and polish work, as claimed.

Claims 1-46 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.



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